

ABSTRACT OF THE DISCLOSURE

An optical disc drive for processing multiple types of optical discs, of which information storage layers have different depths, includes: a light source; a lens for forming a beam spot; a photodetector for outputting a reflected light signal; a spherical aberration generator for generating a minimum spherical aberration when the beam spot is at a reference depth; a focus drive signal generator for moving the beam spot perpendicularly to the information storage layer of a loaded disc by controlling a position of the lens; a light quantity detector for generating a light quantity signal on receiving a reflected light signal every time the beam spot is moved; and a type recognizer for recognizing the type of the loaded disc by estimating the depth of the information storage layer according to a degree of symmetry of the waveform of the light quantity signal.